METHIINE CERAMBYCIDAE OF MEXICO AND CENTRAL AMERICA (COLEOPTERA: CERAMBYCIDAE)

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RECEIVED FOR PUBLICATION DEC. 27, 1962

Abstract The eight genera of the cerambycid tribe Methiini presently known from Mexico and Central America are treated. These genera, *Atenizus, Tristachycera, Malacopterus, Sphagoeme, Pseudomethia, Styloxus, Methia,* and *Placoeme,* new genus, are separated in a key. Keys are also presented for *Styloxus* and *Methia.* New species include: *Placoeme vitticollis, Styloxus oblatipilus, S. parvulus, S. fuscus, Methia subvittata, M. maculosa, M. vittata, M. dentata,* and *M. accidentalis.*

In the Biologia Centrali-Americana, Bates (1880–85) records

[1] The authors gratefully acknowledge the support of the National Science Foundation through Grant G-19959. Appreciation is also expressed to the following individuals and their respective institutions for the loan of material utilized in this study: G. Byers, University of Kansas; P. J. Darlington, Jr., Museum of Comparative Zoology, Harvard University; H. B. Leech, California Academy of Sciences; A. T. McClay, University of California, Davis; F. Truxal, Los Angeles County Museum; P. Vaurie, American Museum of Natural History; and F. Werner, University of Arizona. Additionally, material has been collected on expeditions sponsored by the Associates in Tropical Biogeography, University of California, Berkeley.

only three species of the longicorn tribe Methiini, as currently defined (Linsley, 1962), from Central America and the Mexican mainland: *Atenizus simplex*, *Tristachycera viridis*, and *Malacopterus tenellus*. In 1927, Fisher described *Sphagoeme ochracea* from Panama. To these, Linsley (1935) added two species of *Methia* from the Mexican mainland, and subsequently (1942) recorded six more species from the peninsula of Baja California, from which LeConte (1873) had also described a species of *Styloxus*. In the following pages 8 genera and 26 species are recorded from the northern border area of Mexico to southern Panama. Other species are represented in material before us by poorly preserved or inadequate specimens and no doubt more remain to be discovered.

Key to the genera of Mexican and Central American Methiini

1. Eyes very deeply emarginate, lobes often connected by only a single row of facets; vertex between eyes not tuberculate 2
– Eyes shallowly emarginate at upper edge; vertex between eyes with a large erect tubercle ..... *Atenizus*

2(1) Segments 3–5 of antennae without short spine at apex; coloration testaceous to fuscus, never brightly metallic 3
– Segments 3–5 of antennae with blunt spine at apex; coloration metallic green ..... *Tristachycera*

3(2) Elytra entire; coxal cavities separated by a narrow posternal process; pronotum rounded at sides 4
– Elytra abbreviated, or if as long as abdomen, anterior coxal cavities contiguous, without prosternal process; pronotum often angulate or sinuate at sides 6

4(3) Palpi short, subequal, apical segments not dilated; pronotum strongly constricted at base 5
- Palpi elongate, apical segments strongly dilated; pronotum not strongly constricted at base; elytra strongly costate..... *Malacopterus*

5(4) Pronotum with a large, round, flat, opaque plate at middle at base; intercoxal process of mesosternum narrow; apices of elytra narrowly pointed ..... *Placoeme*
- Pronotum without round plate at middle at base; intercoxal process of mesoternum broad; apices of elytra rounded ..... *Sphagoeme*

6(3) Antennae with basal segments not distinctly thickened, more slender than scape, third segment longer than scape; posterior tarsi less than half as long as tibiae 7
- Antennae with basal segments thickened, as wide as scape, third segment shorter than scape; posterior tarsi more than half as long as tibiae ..... *Pseudomethia*

7(6) Pronotum longer than broad, subcylindrical, sides parallel or very feebly convex; femora clavate ..... *Styloxus*
- Pronotum as wide or wider than long, sides rounded; femora slender, not clavate ..... *Methia*

Genus *Atenizus* Bates

Atenizus Bates, 1867, Ent. Mon. Mag., 4:28; Lacordaire, 1869, Genera des coleóptères, 8:399; Bates, 1884, Biologia Centrali-Americana, Coleoptera, 5:240, Melzer, 1920, Rev. Mus. Paulista, 12:6.

Ceratoeme Melzer, 1920, Rev. Mus. Paulista, 12:6 (Type *C. taunayi* Melzer, monobasic). New synonymy.

The relationships of this genus are not clear. Bates (1867) believed it to have affinities with *Smodicium* and the allied genera. Lacordaire (1869) placed *Atenizus* in his group, "Holoptèrides," which was separated from the "Oemides" by the possession of a membranous rather than corneous ligula. Aurivillius (1912) included the genus in the tribe Oemini.

We have not seen any of the 3 presently included species but judging from the original description, *Atenizus* possesses most of the methiine characters upon which the tribe is based. The significance of the shallowly emarginate eyes and presence of the erect tubercle on the vertex of the head is not apparent at this time. Melzer (1920) was uncertain as to the status of a species he questionably assigned to *Atenizus* and proposed the valid name, *Ceratoeme*. This genus agrees very well with the definition of *Atenizus* and is placed in synonymy.

A single species, *A. simplex* Bates, is presently known from Volcan de Chiriqui, Panama. The other two species, *A. laticeps* Bates and *A. taunayi* Melzer are from Brazil.

Genus *Tristachycera* Bates

Tristachycera Bates, 1872, Trans. Ent. Soc. London, 1872:170; Bates, 1879, Biologia Centrali-Americana, Coleoptera, 5:15.

This genus, if a methiine, is quite distinctive by its green metallic coloration and spines on segments 3 to 5 of the antennae. The metallic coloration and spined antennae are found in the genus *Xystrocera* also.

We have not seen the single included species, *T viridis,* from Chontales, Nicaragua, but it is illustrated by Bates (1879).

Genus *Malacopterus* Audinet-Serville

Malacopterus Audinet-Serville, 1833, Ann. Soc. Ent. France, 2:565; Castelnau, 1840, Histoire naturelle des insects coléoptères, 2:426; Thomson, 1860, Classification des cérambycides, p. 233; Thomson, 1864, Systema cerambycidarum, p. 453; Lacordaire, 1869, Genera des coléoptères, 8:277; LeConte and Horn, 1883, Smithsonian Misc. Coll., 26(507): 284; Linsley, 1962, Univ. California Publ. Ent., 20:14.

Malacomacrus White, 1853, Catalogue of coleopterous insects . . . British Museum, 7:41.

Ganimus LeConte, 1873, Smithsonian Misc. Coll., 11(264):173, 265.

The basally lobed pronotum will distinguish this genus from other *Methiini*. The large size, dilated palpi, and longitudinal vittae and costae make *Malacopterus* distinctive from the other genera of this tribe in Mexico.

A single species, occurring the length of the country, is known.

Malacopterus tenellus (Fabricius)

Callidium tenellum Fabricius, 1801, Systema eleutheratorum, 2:335.

Malacopterus tenellus, Linsley, 1942, Proc. California Acad. Sci., (4)24:32; Linsley, Knull, and Statham, 1961. Amer. Mus. Nov., 2050:9 (habits); Linsley, 1962, Univ. California Publ. Ent., 20:15, fig. 6.

Malacopterus lineatus Guérin, 1844, Iconographie règne animal Insectes, 7:222; Bates, 1870, Trans. Ent. Soc. London, 1870:247; Bates, 1879, Biologia Centrali-Americana, Coleoptera, 5:15, pl. 3, fig. 17; ibid, 1884:240; Hamilton, 1896, Trans. Amer. Ent. Soc., 23:166 (synonymy); Craighead, 1923, Canada Dept. Agr., Bull. (n.s.) 27:41 (larva).

Malacopterus mexicanus Thomson, 1860, Classification des cérambycides, p. 248; Lacordaire, 1869, Genera des coléoptères, 8:228(note); Bates, 1879, Biologia Centrali-Americana, Coleoptera, 5:15.

Ganimus vittatus LeConte, 1873, Smithsonian Misc. Coll., 11(264):173.

Malacopterus vittatus, LeConte and Horn, 1883, Smithsonian

Misc. Coll., 26(507) : 284; Leng, 1884, Bull. Brooklyn Ent. Soc., 7 : 115; Leng, 1885, Ent. Americana, 1 : pl. 2, fig. 19.

A usually large, robust species, testaceous in color. The elytra contain longitudinal dark vittae between the prominent costae and the apices of the antennal segments and femora are narrowly dark. The antennae are longer than the body in males, shorter in females, and the shape and sculpturing of the pronotum differs in the two sexes. Size varies from about 14 mm. to 30 mm.

A single female from Chihuahua exhibits a considerable degree of melanism similar to that found in *Oeme* and *Methia*. Other examples show some melanistic tendencies by having the abdomen dark.

Habits Although *M. tenellus* is most commonly taken at light, several specimens were collected in Chiapas, Mexico on trees which are apparently used as hosts. Three males from El Zapotal, 2 miles S. Tuxtla Gutierrez, VII-10-57, VIII-1-57 (J. A. Chemsak) were taken at night from the trunk and branches of a dead, fallen *Achras zapota* (referred to locally as "chicozapote"). These beetles were actively traversing over the tree and were not attracted to a light located about ten yards away. Another male from 8 miles E. San Christobal de las Casas, VIII-5-57 (J. A. Chemsak) was captured while emerging from the trunk of an undetermined species of *Quercus*.

Mexican material examined as follows: 1 ♀, Catarinas, Chihuahua, 5800 ft., VII-25-47 (D. Rockefeller Exp., Michener); 1 ♂, La Rodarda, Durango, VI-23-47 (G. M. Bradt); 3 ♂♂, 1 ♀, San Blas, Nayarit, III-22-62 (L. A. Stange, F. D. Parker); 2 ♀♀, Tamazunchale, San Luis Potosi, III-21-54 (D. H. Janzen); 1 ♀, Veracruz, Veracruz, VI-12-59 (H. E. Evans); 1 ♂, Cordoba, Veracruz, III-24-53 (D. H. Janzen); 2 ♀♀, Palomares, Oaxaca, IX-5-21-62 (R. & K. Dreisbach); 3 ♂♂, El Zapotal, 2 miles S. Tuxtla Gutierrez, Chiapas, VII-10-57, VIII-1-57, on *Achras zapota* (J. A. Chemsak); 1 ♂, 8 miles E. San Christobal de las Casas, Chiapas, VIII-5-57, ex. *Quercus* (J. A. Chemsak).

Linsley (1942) records this species from Baja California from Hamilton Ranch, August 2 (Michelbacher and Ross) and San Pedro Martir Mts., VI-8-23. Bates

(1884) included the localities of Northern Sonora, Cordova (Veracruz), and Misantla (Veracruz).

Placoeme Chemsak and Linsley, new genus

Form elongate, slender. Head large; eyes deeply emarginate, lower lobe large; genae small, obtusely angulate apically; mandibles acute, abruptly angulate before apex; palpi short, subequal, apical segments not dilated; basal segments of antennal flagellum (at least in male) thick only slightly narrower than scape, covered by small tubercles. Pronotum longer than broad, basal constriction broad, sides widest just before constriction, disk at base with a large, flat, rounded, opaque plate, remainder of surface finely asperate-punctate; prosternal process narrow, laminiform, extending to end of coxae, anterior coxal cavities wide open behind, angulate externally; mesosternal process narrow, coxal cavities open to epimeron. Elytra elongate, narrowed at middle; apices pointed; costae vague. Legs with femora moderately clavate. Abdomen normally segmented.

Type species *Placoeme vitticollis* Chemsak and Linsley.

This genus appears to be distinctive among the Methiini by possessing the large, flat, plate-like process on the pronotum. A single species is presently known.

Placoeme vitticollis Chemsak & Linsley, new species

Male Form narrow, elongate, elytra medially attenuated; color reddish, legs and apical half of elytra testaceous. Head about as wide as greatest width of pronotum; pubescence sparse, very short and fine; front almost vertical, front with median, glabrous area, vertex with deep concavity behind antennal tubercles, tubercles prominent, vertex finely, subopaquely punctate; upper lobes of eyes small, widely separated on vertex; palpi short, subequal, not dilated; basal segments of antennae robust, third segment a little narrower than scape, third segment more than 2½ times as long as scape, fourth and fifth subequal to third, segments densely roughened by small asperites, pubescence dense, suberect. Pronotum longer than wide, broadest behind middle, sides rounded, base deeply, broadly constricted; disk with a shallow longitudinal furrow extending from apex to round, flat, opaque, testaceous plate at base, remainder of surface finely, asperately punctate; a longitudinal black stripe on each side of disk extending length of pronotum and another lateral one on each side; pubescence sparse, short and subdepressed and long and suberect; stridulatory plate of mesonotum large, with a fine groove at apical two-thirds; prosternum broadly, shallowly concave, transversely rugulose, sparsely pubescent, intercoxal process laminiform, coxal cavities wide open behind; mesosternal process narrow, meso- and metasternum finely scabrous, sparsely pubescent; scutellum small, not pubescent. Elytra over 3½ times as long as broad, distinctly attenuated medially; indistinct dark vittae present

at basal half, along suture, laterally, and on disk, expanding at middle along suture, vague vittae also present at apical half; each elytron unicostate; punctation fine, dense, finely rugose; pubescence very short, recurved, with few, scattered, long, suberect hairs; apices acutely produced. Legs with femora clavate, moderately pubescent. Abdomen sparsely punctate and pubescent; apex of fifth sternite rodundate-truncate. Length, 16 mm.

HOLOTYPE male (California Academy of Sciences) from El Salto, Escuintla, Guatemala, 1934 (F. A. Bianchi).

This species can be recognized by the testaceous pronotal structure, the stripes of the pronotum, and the vittate elytra.

Genus *Sphagoeme* Aurivillius

Sphagoeme Aurivillius, 1893, Ent. Tidskr., 14: 178; Gounelle, 1908, Ann. Soc. Ent. France, 77: 598.

This genus includes three species, two from Brazil and another, *S. ochracea* Fisher, from Panama. These species are unknown to us but the genus as characterized by Aurivillius (1893) differs from the other Central American Methiini by the broad mesosternal process, unroughened antennae, and broad general facies.

Central American records of *S. ochracea* as listed by Fisher (1927) are: Cano Saddle, Gatun Lake, Canal Zone, V-8-14-23 (R. C. Shannon); La Chorrera, Panama, V-10-14-12 (A. Busck); Paraiso, Canal Zone, IV-24-11 (A. Busck); Tabernilla, Canal Zone, V-07 (A. Busck); Corazal, Canal Zone, IV-27-11 (A. Busck).

Genus *Pseudomethia* Linsley

Pseudomethia Linsley, 1937, Ent. News, 48: 65; Linsley, 1940, Bull. Southern California Acad. Sci., 39: 33; Linsley, 1962, Univ. California Publ. Ent., 20: 43.

This genus differs from all other known members of the tribe in the basally thickened antennae with the third and fourth segments as wide as the scape, the short third segment of the antennae, and the elongate tarsi. A single species is known from southern California and northern Mexico.

Pseudomethia arida Linsley

Pseudomethia arida Linsley, 1937, Ent. News, 48:66, fig.; Linsley, 1940, Bull. Southern California Acad. Sci.,

39:34; Linsley, 1962, Univ. California Publ. Ent., 20:44, fig. 16.

This species is small, slender, brownish testaceous in color with short elytra which do not extend beyond the first abdominal sternite. Mexican records are: 1 ♂, Desemboque, Sonora, VII-1 to 15-53 (B. Malkin); 5 ♂♂, Hermosillo, Sonora, VII-25-59 (H. E. Evans).

Genus *Styloxus* LeConte

Styloxus LeConte, 1873, Smithsonian Misc. Coll., 11(264):239; ibid, (265):348; LeConte and Horn, 1883, Smithsonian Misc. Coll., 26(507):334; Leng and Hamilton, 1896, Trans. Amer. Ent. Soc., 23:162; Linsley, 1932, Pan-Pacific Ent., 8:120; Linsley, 1940, Bull. Southern California Acad. Sci., 39:34; Linsley, 1962, Univ. California Publ. Ent., 20:39.

Idoemea Horn, 1880, Trans. Amer. Ent. Soc., 8:137; LeConte and Horn, 1883, Smithsonian Misc. Coll., 26 (507):334; Leng and Hamilton, 1896, Trans. Amer. Ent. Soc., 23:162.

Malthopia Casey, 1912, Memoirs on the Coleoptera, 3:308.

This genus is closely related to *Methia* and differs in the longer, subparallel pronotum and clavate femora. Previously, three species were included in *Styloxus,* one from Baja California and two from the United States. Three additional species, described as new, are now added to the fauna of the mainland.

Key to the species of *Styloxus*

1 Stridulatory plate of mesonotum without a median longitudinal groove extending entire length of plate 2

– Stridulatory plate of mesonotum with a median longitudinal groove extending entire length of plate; color brown to fuscus. Length 7–11 mm. Baja California to Sinaloa ..... *lucanus*

2(1) Concolorous; antennal tubercles moderately divergent, inner apices on or within a vertical line tangent to inner margin of lower lobe of eye 3

– Head (and frequently prothorax) entirely reddish-orange; antennal tubercles widely divergent, inner apices well outside of a vertical line tangent to inner margin of lower lobe of eye. Length, 7–12 mm. New Mexico to southern California ..... *bicolor*

3(2) Apical segment of maxillary palpi narrow, only slightly

broader than apical segment of labial palpi; erect pubescence of antennal segments very short, much less than half as long as width of segments, or depressed and not erect 4

- Apical segment of maxillary palpi large, about twice as broad as apical segment of labial palpi; erect pubescence of antennal segments about half as long as width of segments; color brown, form large. Length, 10–18 mm. Texas to southern California and Oregon ..... *fulleri*

4(3) Short, dense hairs of antennal segments erect, not depressed; stridulatory plate of mesonatum not grooved 5

- Short, dense hairs of antennal segments depressed or subdepressed, not erect; stridulatory plate of mesonotum with a fine, longitudinal groove at basal one-third; color brown. Length, 11 mm. Tamaulipas ..... *oblatipilus*

5(4) Eyes narrowly separated beneath in males, separation less than width of third antennal segment; females with pubescence of antennae moderate, not densely clothed with erect, bristling hairs. Color light brown to brown. Length, 7–8 mm. San Luis Potosi ..... *parvulus*

- Eyes widely separated beneath in males, separation equal to or greater than width of third antennal segment; females with antennal segments densely clothed with erect, bristling hairs; color fuscus. Length, 7–12. Veracruz ..... *fuscus*

Styloxus lucanus LeConte

Styloxus lucanus LeConte, 1873, Smithsonian Misc. Coll., 11(264):240; Hamilton, 1885, Trans. Amer. Ent. Soc., 23:162; Linsley, 1940, Bull. Southern California Acad. Sci., 39:45; Linsley, 1942, Proc. California Acad. Sci., (4)24:28.

This species is distinct among the known *Styloxus* by possessing a median longitudinal groove on the stridulatory plate of the mesonotum. The color ranges from brown to fuscus. The females differ by having longer, more numerous, erect hairs on the antennal segments and elytra and the antennae extend only to about the elytral apices.

S. lucanus is most abundant in the Cape region of Baja California but extends onto the mainland to Sonora and Sinaloa. The type locality is Cape San Lucas. Material examined as follows:

Baja California: 2 ♂♂, 5 miles W. San Bartolo, VII-13-38 (Michelbacher and Ross); 26 ♂♂, 7 ♀♀, Triunfo,

VII-7 and 13-38 (Michelbacher and Ross); 3 ♂♂, 6 miles N. Triunfo, VII-15-38 (Michelbacher and Ross) 10 ♂♂, San Domingo, VII-19-38 (Michelbacher and Ross); 1 ♂, 5 miles S. San Miguel, VII-20-38 (Michelbacher and Ross); 2 ♂♂, Comondu, VII-22-38 (Michelbacher and Ross); 1 ♂, 15 miles N. Punta Prieta, VII-29-38 (Michelbacher and Ross). Sonora: 9 ♂♂, Desemboque, VII-17 to 31-53, VIII-1 to 15-53, VIII-20 to 31-53 (B. Malkin). Sinaloa: 2 ♂♂, 6 miles N.W. La Cruz, V-19-62 (F. D. Parker, L. A. Stange).

Styloxus bicolor (Champlain and Knull)

Idoemea bicolor Champlain and Knull, 1922, Ent. News, 33:145.

Idoemea sp., Craighead, 1923, Canada Dept. Agr. Bull. (n.s.) 27:41 (larva).

Styloxus bicolor, Linsley, 1932, Pan-Pacific Ent., 8:122 (synonymy); Linsley, 1936, Pan-Pacific Ent., 12:199 (habits); Linsley, Knull, and Statham, 1961, Amer. Mus. Nov., 2050:11 (habits); Linsley, 1962, Univ. California Publ. Ent., 20:41, figs. 14, 15.

Styloxus ruficeps Van Dyke, 1927, Pan-Pacific Ent., 3:100.

This species may be characterized by the widely divergent antennal tubercles and reddish-orange head. While specimens are usually black, they may occasionally be brownish. We have seen no Mexican examples but the species must certainly occur, at least in northern Mexico.

Styloxus fulleri (Horn)

Idoemea fulleri Horn, 1880, Trans. Amer. Ent. Soc., 8:138, Pl. 2, fig. 10.

Idoemea texana Schaeffer, 1908, Bull. Brooklyn Inst. Arts Sci., 1(12):351.

Styloxus fulleri fulleri, Linsley, 1962, Univ. California Publ. Ent., 20:40, fig. 15.

Idoemea californica Fall, 1901, Occ. Papers California Acad. Sci., 8:256; Van Dyke, 1927, Pan-Pacific Ent., 3:101 (synonymy).

Styloxus californicus, Linsley, 1932, Pan-Pacific Ent., 8:122; Linsley, 1936, Pan-Pacific Ent., 12:199 (habits).

Malthopia oculata Casey, 1912, Memoirs on the Coleoptera, 3:309.

Styloxus fulleri californicus, Linsley, 1962, Univ. California Publ. Ent., 20:40 fig. 15.

Two subspecies of *fulleri* are recognized by Linsley 1962, neither one of which has been reported from Mexico as yet.

Individuals of this species tend to be larger, have broader apical segments of the maxillary palpi, and possess longer pubescence on the antennae than other known members of the genus.

Styloxus **oblatipilus** Chemsak and Linsley, new species

MALE Form slender; color dark brown; integument moderately coarsely punctured, sparsely pubescent. Head wider than pronotum; antennal tubercles moderately divergent, inner apices on or within a vertical line tangent to inner margin of lower lobe of eye; eyes contiguous on vertex, separated ventrally by more than diameter of third antennal segment; antennae nearly twice as long as body, scape with apical cicatrix prominent but not acutely produced, segments densely clothed with short subdepressed pubescence with few, long, erect hairs internally; maxillary palpi not broad at apex. Pronotum about 1⅓ as long as broad, subcylindrical, sides sinuate; surface shallowly scabrous, punctures indistinct, with a vague median longitudinal line; pubescence moderately dense, subdepressed with numerous long erect hairs scattered throughout; stridulatory plate of mesonotum with a fine groove at basal one-third. Elytra wider than pronotum, almost 2½ times as long as broad, exposing last 2 or 3 abdominal segments; punctures moderately coarse, dense, pubescence fine, short, recurved. Legs moderately pubescent, with a few long, flying hairs. Abdomen finely punctate, sparsely pubescent; apex of fifth abdominal sternite broadly truncate. Length, 11 mm.

HOLOTYPE male (California Academy of Sciences) from Villagran, Tamaulipas, Mexico, VI-7-51 (P. D. Hurd); one male paratype from Ciudad Victoria, Tamaulipas, VII-12-58 (G. H. Beatty).

This species is distinctive by having the stridulatory plate of the mesonotum finely grooved at the basal one-third and by the subdepressed, rather than erect, short pubescence of the antennae.

Styloxus **parvulus** Chemsak & Linsley, new species

MALE Form slender; color pale brown to brown; integument finely punctuate, sparsely pubescent. Head wider than pronotum; anten-

nal tubercles moderately divergent, inner apices on or within a vertical line tangent to inner margin of lower lobe of eye; eyes contiguous on vertex, narrowly separated ventrally by less than diameter of third antennal segment; antennae nearly twice as long as body, cicatrix of scape prominently produced at apex, erect hairs of segments very short, less than half as long as diameter of segments, long erect hairs sparse internally; maxillary palpi narrow at apex. Pronotum about 1⅓ as long as broad, subcylindrical, sides sinuate; surface shallowly punctate, with vague, glabrous calluses; pubescence long, sparse, erect and suberect; stridulatory plate of mesonotum not grooved. Elytra less than 3 times as long as broad, exposing last 3 abdominal segments; punctation fine, moderately dense, pubescence short, recurved. Legs bristling with long flying hairs. Abdomen finely punctate, sparsely pubescent; apex of fifth abdominal sternite broadly truncate. Length, 7–8 mm.

Female Antennae a little longer than body; eyes more broadly separated ventrally; pubescence of antennae long, bristling, not uniformly arranged along outside margin; elytra with scattered, long, erect hairs; elytra elongate, exposing only last abdominal segment; apex of fifth abdominal segment narrowly rounded. Length, 7–8 mm.

Holotype male (California Academy of Sciences) from 11 km. E. of Ciudad de Valles, San Luis Potosi, Mexico, V-29-48 (F. Werner, W. Nutting); allotype female from 167 km. E. San Luis Potosi, San Luis Potosi, VII-3-48 (F. Werner, W. Nutting); one male paratype with same data as holotype and one female paratype with same data as allotype.

The narrow ventral separation of the eyes and very short, erect pubescence of the antennae of the males will separate *S. parvulus* from other known *Styloxus*.

Styloxus **fuscus** Chemsak & Linsley, new species

Male Form slender; color fuscus, elytra slightly paler, shining; integument moderately coarsely, densely punctate, pubescence moderately dense. Head wider than pronotum; antennal tubercles moderately divergent, inner apices on or within a vertical line tangent to inner margin of lower lobe of eye; eyes contiguous on vertex, separated ventrally by more than diameter of third antennal segment; antennae twice as long as body or longer, cicatrix of scape prominent, apically produced, segments densely clothed with short erect hairs which are shorter than half the diameter of the segments, long, erect hairs sparse internally; maxillary palpi not broad apically. Pronotum slightly longer than broad, subcylindrical, sides sinuate; surface coarsely, subrugosely punctate

with elongate, glabrous calluses at sides of middle; pubescence moderately dense, bristling; stridulatory plate of mesonotum not grooved. Elytra almost three times as long as broad, exposing last 2 abdominal segments; punctures moderately coarse, dense, subcontiguous; pubescence fairly dense, short, recurved. Legs with numerous, long flying hairs. Abdomen finely, sparsely punctate, sparsely pubescent; apex of last abdominal segment broadly truncate. Length, 7–10 mm.

FEMALE Antennae slightly longer than body; eyes more broadly separated ventrally; pubescence of antennae dense, bristling, erect and suberect; elytra separately punctured, bristling with long, suberect and longer, erect hairs; apex of fifth abdominal sternite rounded. Length, 12 mm.

HOLOTYPE male, allotype female (University of Calfornia, Davis) and 13 male paratypes from Tinajas, Veracruz, Mexico, IV-28-62 (F. D. Parker, L. A. Stange); an additional male paratype from Paso de Ovejas, Veracruz, IV-30-62 (F. D. Parker, L. A. Stange).

This species may be recognized by its fuscus color, the ventrally widely separated eyes, and very short, erect pubescence of the antennae.

Genus *Methia* Newman

Methia Newman, 1842, Entomologist, 1:418; LeConte, 1852, Jour. Acad. Nat. Sci. Philadelphia, (2)2:144; Thomson, 1860, Classification des cérambycides, p. 128; Thomson, 1864, Systema cerambycidarum, p. 387; Lacordaire, 1872; Genera des coléoptères, 9:466; LeConte, 1873, Smithsonian Misc. Coll., 11(265):348; LeConte and Horn, 1883, Smithsonian Misc. Coll., 26(507):334; Leng and Hamilton, 1896, Trans. Amer. Ent. Soc., 23:162; Melzer, 1923, Rev. Mus. Paulista, 13:529; Linsley, 1932, Pan-Pacific Ent., 8:120; Linsley, 1940, Bull. Southern California Acad. Sci., 39:36; Linsley, 1962, Univ. California Publ. Ent., 20:25.

Thia Newman, 1840, Entomologist, 1:18.

This genus may be distinguished from *Styloxus* by the broader pronotum and linear, non-clavate femora. The elytra vary in length in different species, often extending beyond the last abdominal segment. Variation is also evident in the dorsal and ventral separation of the

eyes and the width of the connection of the upper and lower eye lobes.

At the present time, fourteen species are recognized from Mexico, extending from the northern boundary to the State of Puebla. Other, badly broken, unique specimens are at hand from as far south as Chiapas. Of the species included here, four are described as new, three are also known from the United States, two have been previously described from the mainland of Mexico, and the remainder are known only from Baja California. fornia.

No doubt numerous species remain yet to be collected and described and with the aid of black light, the numbers of Mexican species should exceed the numbers found within the confines of the United States.

Key to the species of Mexican *Methia*

1.	Eyes separated on vertex by about diameter of antennal scape	2
–	Eyes contiguous on vertex or separated by about diameter of third antennal segment or less	3
2(1)	Head, pronotum, underside, and legs orange, elytra, except around scutellum, black; upper and lower lobes of eyes connected by 2 rows of facets; costae vague, vittae absent on elytra. Length, 8–9 mm. Mexico	*bicolorata*
–	Body brownish in color, elytra paler, vittate, costae strong; lobes of eyes connected by a single row of facets. Length, 7 mm. Hidalgo	*subvittata*
3(2)	Eyes separated beneath by diameter of antennal scape or more	4
–	Eyes contiguous beneath or separated by less than diameter of antennal scape	10
4(3)	Elytra elongate, extending to apex of abdomen or beyond; lobes of eyes connected by 2 rows of facets	5
–	Elytra short, not extending to apex of abdomen; lobes of eyes connected by a single row of facets	6
5(4)	Elytra uniformly black, or with pale vittae, or pale except apices; basal punctures of elytra fine, sparse, widely separated; pronotum distinctly, closely punctate. Length, 10–15 mm. Colorado and Utah to Arizona, Texas, and Chihuahua	*mormona*
–	Elytra brownish, with distinct pale patches at base, basal one-third, and apical one-third; basal punctures of elytra dense, shallow, contiguous; pronotum finely, subopaquely rugulose. Length, 13 mm. Hidalgo	*maculosa*
6(4)	Pubescence of elytra sparse, suberect, dark or pale	7
–	Pubescence of elytra dense, recurved, pale	8

7(6) Pubescence of elytra pale, very sparse, surface shining; elytra usually testaceous with apices dark at most. 3–5 mm. Lower Baja California ..... *debilis*

– Pubescence of elytra dark; color fuscus with distinct pale vittae on elytra. 10 mm. Puebla. ..... *vittata*

8(6) Pronotum gradually constricted from middle at base, disk without calluses; antennae concolorous 9

– Pronotum strongly constricted at base, disk with rather flat but distinct calluses on sides of middle toward apical half; basal antennal segments annulated with darker bands at apex; elytra often pale or with pale maculae. Length, 5–7 mm. Southern Texas and Tamaulipas ..... *constricticollis*

9(8) Neck behind eyes scabrous, transversely rugulose; scape of antennae with strong apical tooth; elytra with very vague costae. Length, 6.5 mm. Baja California ..... *subarmata*

– Neck behind eyes distinctly punctate with central glabrous area; apical tooth of scape feeble; elytra distinctly costate. Length, 7 mm. Baja California ..... *pallidipennis*

10(3) Pubescence of elytra dense, pale, recurved, no dark hairs present.....11

– Pubescence of elytra sparse, dark, both recurved and suberect; elytra vittate, impunctate, subopaque. Length, 6 mm. Mexico ..... *lineata*

11(10) Scape with a strong apical tooth 12

– Scape without a strong apical tooth 13

12(11) Color dark reddish-brown; elytra not strongly dehiscent toward apex; apex of fifth abdominal sternite of male concavely emarginate, broadly U-shaped; marginal costae of the elytra vague. Length, 7 mm. Durango ..... *dentata*

– Color fuscus, elytra pale, vaguely vittate; elytra strongly dehiscent toward apex; apex of fifth abdominal sternite of male deeply notched, V-shaped; of female, broadly, concavely emarginate; female with elytra testaceous, shining; marginal costae of elytra distinct. Length, 6–8 mm. Sonora ..... *occidentalis*

13(11) Neck distinctly punctured, shining, punctures separated; elytra distinctly costate, elongate, extending at least to end of fourth abdominal segment. Length, 6–9 mm. Baja California.....*picta*

– Neck coarsely, rugosely punctate, subopaque; elytra short, at most covering first three abdominal segments; costae vague. Length, 4.5–6 mm. Western Arizona to southern California and Baja California .....*brevis*

Methia bicolorata Linsley

Methia bicolor Linsley, 1935, Trans. Amer. Ent. Soc., 61: 72.
Methia bicolorata Linsley, 1962, Univ. California Publ. Ent., 20: 34, fn.

This is probably the most distinctive species of *Methia* with the head, prothorax, legs, and underside orangish and the elongate elytra black.

M. bicolorata is known only from the type series consisting of 1 male and 2 females from Real de Arriba, Temescaltepec, Mexico, VII-33 (H. E. Hinton, R. L. Usinger).

Methia **subvittata** Chemsak & Linsley, new species

Male Form slender, parallel; elytra testaceous with dark vittae, remainder of body darker brown; integument vaguely, shallowly punctate, sparsely pubescent. Head wider than pronotum; eyes widely separated on vertex, separation greater than diameter of third antennal segment, broadly separated beneath by a distance greater than diameter of antennal scape, upper and lower lobes connected by a single row of facets; antennae extending about four segments beyond body, scape with apical tooth absent, erect hairs of segments about as long as diameter of segments, internal cilia fairly sparse. Pronotum broader than long, sides rounded, widest at middle; disk shallowly alveolate punctate, scabrous, sparsely pubescent; stridulatory plate of mesonotum not grooved. Elytra about three times as long as broad, extending beyond apex of abdomen; each elytron tricostate with dark vittae at humeri, basal one-fourth, along margins and suture; punctation very shallow, confluent, vague; pubescence sparse, consisting of short, dark, recurved hairs. Legs rather sparsely pubescent, flying hairs not abundant. Abdomen sparsely punctate; apex of fifth sternite emarginate. Length, 7 mm.

Holotype male (California Academy of Sciences), from Ixmiquilpan, Hidalgo, Mexico, II–25–53 (R. C. Bechtel, E. I. Schlinger).

The widely separated eyes, pubescence of the pronotum, and the pale, scarcely vittate elytra will distinguish this species from *M. separata.*

Methia mormona Linell

Methia mormona Linell, 1896, Proc. United States Nat. Mus., 19: 399; Linsley, 1937, Ent. News, 48: 64; Linsley, 1962, Univ. California Publ. Ent., 20: 29, fig. 15.

Methia mormonica, Casey, 1924, Memoirs on the Coleoptera, 11: 257.

Methia delicata Casey, 1924, Memoirs on the Coleoptera, 11: 257.

This is a rather large, robust species usually with vittate elytra. The color pattern of the elytra is variable, ranging from completely black to pale with dark apices. *M. mormona* can usually be recognized by the elongate, vittate elytra, the widely separated eyes beneath, and the fine punctation of the elytra.

Although this species is fairly common in southern Arizona, only 2 males (one all black) are available from Mexico. The locality is 5 miles N. Cerro Campana, Sierra del Nido, Chihuahua, VII–6–59 (W. C. Russell).

Methia **maculosa** Chemsak & Linsley, new species

MALE Form slender, elongate; color reddish brown, elytra elongate, with pale maculae. Head very slightly wider than pronotum; eyes subcontiguous on vertex, separated beneath by about diameter of antennal scape, upper and lower lobes connected by three rows of facets; neck coarsely, contiguously punctate; pubescence sparse, subdepressed; antennae extending about four segments beyond body, scape without a distinct tooth at apex; antennal tubercles obtusely pointed at apex. Pronotum broader than long, impressed basally and apically; disk scabrous, shallowly rugulose, pubescence thin, long; stridulatory plate of mesonotum not grooved. Elytra elongate, almost 4 times as long as broad, extending beyond apex of abdomen; each elytron tricostate with pale maculae at base, basal one-third and elongate ones at apical one-third; punctation dense, shallow, contiguous; pubescence sparse, very short, dark, recurved. Legs rather sparsely pubescent, long flying hairs sparse. Abdomen finely, sparsely punctate, sparsely pubescent; apex of fifth sternite emarginate. Length, 13 mm.

HOLOTYPE male (Museum of Comparative Zoology, Harvard University from San Miguel, Hidalgo, Mexico (W. M. Mann).

This species is distinctive by its reddish brown coloration, pale maculae of the elytra, the elongate elytra, and the dense shallow punctation of the elytra.

Methia debilis (Horn)

Dysphaga debilis Horn, 1895, Proc. California Acad. Sci., (2)5 : 246; Leng and Hamilton, 1896, Trans. Amer. Ent. Soc., 23 : 163.

Tessaropa debilis, Blackwelder, 1946, United States Nat. Mus. Bull. 185(4) : 559.

Methia debilis, Linsley, 1940, Bull Southern California Acad. Sci., 39 : 31; Linsley, 1942, Proc. California Acad. Sci., (4)24 : 28, pl. 4, figs. 1, 2.

This is the smallest (3–5 mm.) known species of *Methia.* The shining elytra are usually testaceous with only the apices darkened. The pubscence is sparse and suberect.

M. debilis is known only from slightly north of and from the Cape Region of Baja California. The type locality is San Jose del Cabo and additional records all collected by Michelbacher and Ross at light are: 3 ♂♂, Triunfo, VII–13–38; 1 ♂, 1 ♀, Vemancio, VII–17–38; 1 ♀, 6 miles N. Triunfo, VII–15–38; 1 ♂, 15 miles W. La Paz, VII–5–38; 1 ♂, 8 miles, N.E. Cape San Lucas,

VII–10–38; 2 ♂♂, 5 miles S. San Miguel, VII–20–38; 2 ♀♀, 20 miles N. Comondu, VII–23–38.

Methia **vittata** Chemsak & Linsley, new species

FEMALE Form slender, elongate; color fuscus, elytra with pale vittae. Head slightly broader than pronotum; eyes slightly separated on vertex, separated beneath by more than diameter of antennal scape, lobes of eyes connected by a single row of facets; antennae slightly longer than body, scape with feeble apical tooth; pubescence sparse, subdepressed; neck rugose. Pronotum broader than long, sides rounded, impressed at base and apex; disk impunctate, opaque, pubescence long, erect; stridulatory plate of mesonotum not grooved. Elytra over 3½ times as long as broad, not extending beyond apex of abdomen; each elytron tricostate, with pale vittae; punctures obsolete, surface scabrous; pubescence sparse, dark, suberect. Legs with numerous, long, flying hairs. Abdomen shining, very sparsely punctate, sparsely pubescent; apex of last sternite V-shaped. Length, 10 mm.

HOLOTYPE female (University of California, Davis) from Caloapan, Puebla, Mexico, IV–26–62 (F. D. Parker, L. A. Stange).

This species resembles *M. mormona* in coloration. It can be readily differentiated by the impunctate, opaque pronotum and impunctate and shorter elytra.

Methia constrictricollis Schaeffer

Methia constricticollis Schaeffer, 1908, Bull. Brooklyn Inst. Arts Sci., 1: 351; Linsley, 1962, Univ. California Publ. Ent., 20: 31.

The strongly, basally constricted pronotum, discal pronotal calluses, and bicolored antennae will distinguish this species. Additionally, the pronotum is usually bicolored and the elytra are vittate.

Mexican material at hand includes: 1 ♂, 167 km. E. San Luis Potosi, San Luis Potosi, VII–3–48 (Werner and Nutting); 1 ♂, San Fernando, Tamaulipas, VIII–27–54 (C. D. Michener and party).

Methia subarmata Linsley

Methia subarmata Linsley, 1942, Proc. California Acad. Sci., (4)24: 31.

This species is known only from the male type from 15 miles N. Punta Prieta, Baja California, VII–29–38 (Michelbacher and Ross). It is close to *M. picta* Linsley and to *M. pallidipennis* Linsley but differs from the former by the widely separated

eyes beneath and from *pallidipennis* by the sculpturing of the neck and presence of a strong tooth on the scape.

Methia pallidipennis Linsley

Methia pallidipennis Linsley, 1942, Proc. California Acad. Sci., (4)24:32.

Known only from the male type from San Domingo, Baja California, VII–19–38 (Michelbacher and Ross). The elytra are pale with indications of dark vittae, the costae are strong, and the neck is distinctly punctate.

Methia lineata Linsley

Methia lineata Linsley, 1935, Trans. Amer. Ent. Soc., 61:72.

The elytral pattern of *M. lineata* is suggestive of *mormona*. However, the eyes are more narrowly separated beneath and the elytra are opaque in *lineata*. The sparse, dark pubescence will separate this species from the remainder of the group of *Methia* with eyes narrowly separated beneath. Known only from the male type from Real de Arriba, Temescaltepec, Mexico, Mexico, VII–1933 (H. E. Hinton, R. E. Usinger).

Methia **dentata** Chemsak & Linsley, new species

MALE Form slender, elytra slightly tapering posteriorly; color uniformly dark reddish-brown. Head slightly wider than pronotum; eyes contiguous on vertex, separated beneath by less than diameter of antennal scape, lobes of eyes connected by a single row of facets; antennae more than twice as long as body, scape with prominent apical tooth; pubescence sparse, subdepressed; neck scabrous, subrugose. Pronotum broader than long, sides obtusely angulate; disk scabrous, finely rugulose, pubescence sparse, long; stridulatory plate of mesonotum not grooved. Elytra less than 2½ times as long as broad, tapering apically, extending to apex of fourth abdominal segment; each elytron distinctly bicostate, third costa vague, without paler vittae; punctures indistinct, scabrous and rugose; pubescence fairly dense, recurved. Legs not densely clothed with long, flying hairs. Adbomen sparsely pubescent; apex of fifth sternite emarginate. Length, 7 mm.

HOLOTYPE male (California Academy of Sciences) from Torreon, "Coahuila," (Durango) Mexico, V–28–37 (M. A. Embury).

The strong apical tooth of the antennal scape and different ground color distinguish this species from *M. brevis* and *M. picta*.

The dark reddish-brown ground color and non-dehiscent elytra separate *M. dentata* from *M. occidentalis*.

Methia **occidentalis** Chemsak & Linsley, new species

Male Form short, fairly robust; elytra distinctly dehiscent toward apex; color fuscus with paler, subvittate elytra. Head about as wide as pronotum; eyes contiguous on vertex, separated beneath by less than diameter of antennal scape, lobes of eyes connected by a single row of facets; antennae more than twice as long as body, scape with prominent apical tooth; pubescence rather sparse, subdepressed; neck coarsely, subrugosely punctate. Pronotum broader than long, sides obtusely angulate; disk scabrous, finely, transversely rugulose; pubescence moderately dense, long; stridulatory plate of mesonotum not grooved. Elytra slightly more than twice as long as broad, dehiscent toward apex, not extending beyond third abdominal segment; each elytron distinctly tricostate, vaguely, irregularly vittate; punctures indistinct, scabrous and finely rugose; pubescence fairly dense, short, pale, recurved. Legs moderately densely pubescent. Abdomen sparsely punctate and pubescent; apex of fifth sternite deeply notched, V-shaped. Length, 6–7 mm.

Female Color paler; antennae extending about four segments beyond body, segments with erect and subdepressed hairs, short erect hairs not arranged in rows along edges; elytra covering first four abdominal segments, pubescence long, erect; apex of fifth abdominal segment deeply emarginate. Length, 7–8 mm.

Holotype male, allotype female (California Academy of Sciences) and two male paratypes from Navajoa, Sonora, Mexico, VI–23–62 (A. E. Michelbacher). Also assigned to this species but not paratypes are one male and one female from Hermosillo, Sonora, VI–20–62 (A. E. Michelbacher).

This species appears to be very close to *M. dentata* but can be differentiated by the fuscus color and pale elytra, the dehiscent elytra, and by the deep, V-shaped emargination of the last abdominal sternite.

Methia picta Linsley

Methia picta Linsley, 1942, Proc. California Acad. Sci., (4)24: 29, pl. 4, fig. 4.

Methia separata Linsley, 1942, Proc. California Acad. Sci., (4)24: 30. New synonymy.

This species may be characterized by usually having the eyes contiguous on the vertex and subcontiguous beneath, the rather dense, recurved, pale pubescence of the elytra, the distinct elytral costae, and fairly elongate elytra. However, the species is ex-

tremely variable as well as strongly sexually dimorphic. Occasionally the eyes are separated on the vertex (accounting for the synonymy) and the color pattern of the elytra varies from all dark to mostly pale, with vittae usually being present.

Thus far, *M. picta* is known only from Baja California, apparently extending the length of the peninsula. The northern forms tend to be darker and greatly resemble *M. brevis* while the specimens from the Cape region are pale and smaller. Material assignable to this species, all from Baja California includes:

2 ♂♂, 1 ♀, Triunfo, VII–13–38 (Michelbacher and Ross); 1 ♂, 1 ♀, San Fernando, VII–31–38 (Michelbacher and Ross); 5 ♂♂, 20 miles N.W. La Paz, VII–16–38 (Michelbacher and Ross); 5 ♂♂, 1 ♀, 15 miles W. La Paz, VII–5–38 (Michelbacher and Ross); 5 ♂♂, 1 ♀, 8 miles N.E. Cape San Lucas, VII–10–38 (Michelbacher and Ross); 5 ♂♂, 10 miles S. Catavina, VII–29–38 (Michelbacher and Ross); 8 ♂♂, 20 miles W. Santa Rosalia, VI–24–38 (Michelbacher and Ross); 2 ♂♂, 15 miles N. El Refugio, VII–4–38 (Michelbacher and Ross); 1 ♂, Comondu, VII–22–38 (Michelbacher and Ross); 1 ♂, 20 miles N. Comondu, VII–23–38 (Michelbacher and Ross); 4 ♂♂, 15 miles N. Punta Prieta, VII–29–38 (Michelbacher and Ross); 13 ♂♂, 1 ♀, El Progreso, Head of El Tajo Canyon, Sierra Juarez Mts., IX–10–58 (F. Truxal, J. Northern); 4 ♂♂, 1 ♀, Cerro Cuevoso, Cabo Pulmo, III–26–47 (I. LaRivers).

Methia brevis Fall

Methia brevis Fall, 1929, Canadian Ent., 61:58; Linsley, 1934, Pan-Pacific Ent., 10:59; Linsley, 1942, Proc. California Acad. Sci., (4)24:29; Linsley, 1962, Univ. California Publ. Ent., 20:32.

This species greatly resembles the northern forms of *M. picta* in form and coloration. The two can be separated by the coarsely, rugosely punctate neck of *brevis* and also by its shorter, weakly costate elytra.

Mexican records are all from Baja California: 7 ♂♂, El Tajo Canyon, Sierra Juarez Mts., IX–14–58 (F. Truxal, J. Northern); 1 ♂, E. base Sierra de Juarez below La Rumorosa, IX–11–61 (A. L. Wiggins). Linsley (1934) records the species from Angeles Bay.

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